

Remarks

Claims 1-21 are now pending in this application. Applicants have amended claims 1, 2, 4, 8-12 and 16 and added new claims 17-21 to clarify the present invention. Applicants respectfully request favorable reconsideration of this application.

The Examiner rejected claim 2 under 35 U.S.C. § 112, second paragraph, as indefinite. Applicants have amended claim 2 to delete the language reciting specific embodiments and added new claim 18 to recite these embodiments. Applicants have similarly amended claims 4, 11, and 16 and added new claims 17, 20, and 21. In view of the above, Applicants submit that claim 2 complies with 35 U.S.C. § 112, second paragraph and respectfully request withdrawal of this rejection.

The Examiner rejected claims 1-16 under 35 U.S.C. § 103(a) as being unpatentable over WO 98/14644 to Fornell et al.

Fornell et al. does not suggest the present invention as recited in claim 1, since, among other things, Fornell et al. does not suggest a method for growing large, single polytype, compound crystals that includes providing an etching gas flow into a growth enclosure into which a seed crystal and a mixture of vapor species containing at least elements of the crystal have been introduced. Rather, Forness et al. suggests introducing an inert (noble) gas as an additional, or separate, non-depositional gas. The inert gas may include Helium or Argon. Applicants direct the Examiner's attention to Fornell et al. at page 11, lines 17-19, which

describes that an additional flow of inert gas is introduced into the device.

The inert gas is per se non-reactive. Fornell et al. suggests that the additional inert gas flows along the inner side of the susceptor and thus shields or cleans this inner side from the depositive gases, i.e. the gases used for growing the crystal. Fornell et al. suggests that the intention is to keep depositions to the object side and obviate depositions on the inner wall of the susceptor, which, for example, may block the outlets. Fornell et al. describes this at page 11, lines 20-31; and page 12, lines 3-7.

Unlike the inert gas suggested by Fornell et al., the halogen containing gas recited in claim 1 is reactive. Inert gases are not reactive by definition. Since Fornell et al. suggests introducing an additional inert gas, i.e. non-reactive, Fornell et al. actually teaches away from the present invention as recited in claim 1. As a result, one of ordinary skill in the art would further not connect a halogen containing gas with an inert gas.

In view of the above, Fornell et al. does not suggest the present invention as recited in claim 1 or claims 2-11 and 18-21, which depend from claim 1.

Fornell et al. also does not suggest the present invention as recited in claim 12, since, among other things, Fornell et al. does not suggest a device for producing large, single polytype, compound crystals that includes means to continuously feed and control an etching gas mixture comprising a halogen. As discussed above, Fornell et al. suggests introducing an inert gas. Additionally, Fornell et al. does not suggest feeding any type of gas "into a conduit of a rotating

shaft supporting a seed crystal holder and said conduit communicating with a region downstream of the seed crystal" nor "into conduits designed to open into a downstream room of the susceptor, said downstream room being in contact with an upstream room of the susceptor extending until the initial position of the seed holder", both of which may be part of the present invention as recited in claim 12. Therefore, Fornell et al. does not suggest the present invention as recited in claim 12 or claims 13-15, which depend from claim 12.

Fornell et al. does not suggest the present invention as recited in claim 16 since, among other things, Fornell et al. does not suggest "means to feed or diffuse a continuous flow of an etch gas mixture comprising at least one halogen element". Rather, as discussed above, Fornell et al. suggests feeding an inert gas. Additionally, Fornell et al. does not suggest "effusion openings in the susceptor" as recited in claim 16. Furthermore, Fornell et al. does not suggest "means to feed or diffuse a continuous flow of a gas mixture containing at least one halogen element", or any gas mixture, "in the immediate vicinity of said effusion openings", as also recited in claim 16. Therefore, Fornell et al. does not suggest the present invention as recited in claim 16 or claim 17, which depends from claim 16.

In view of the above, the reference relied upon in the office action does not suggest patentable features of the present invention. Therefore, the reference relied upon in the office action does not make the present invention obvious. Accordingly, Applicants respectfully request withdrawal of the rejection based upon the cited reference.

In conclusion, Applicants respectfully request favorable reconsideration of this case and

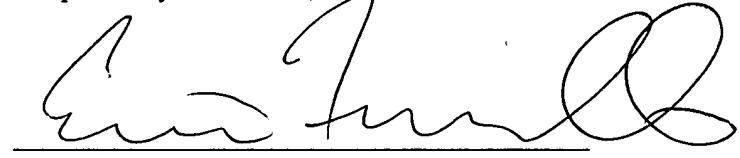
early issuance of the Notice of Allowance.

If an interview would advance the prosecution of this case, Applicants urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Date: 10/31/05

Respectfully submitted,



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